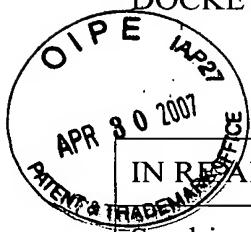


DOCKET NO: 238017US0



IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF	:
Sandrine DECOSTER, et al.	: GROUP ART UNIT: 1616
SERIAL NO: 10/606,786	:
FILED: JUNE 27, 2003	: EXAMINER: ARNOLD, ERNST V.
FOR: COMPOSITION COMPRISING A QUARTERNARY SILICONE AND A LIQUID FATTY ALCOHOL AND METHOD OF TREATMENT	

DECLARATION UNDER 37 C.F.R. 1.132

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

SIR:

I, Frederic WOODLAND, hereby declare:

1. I am employed by L'ORÉAL as an engineer and have experience in the field of cosmetics preparing and analyzing compositions.
2. The following observations and experiments were carried out by me or under my direct supervision and control.
3. The following three compositions were prepared:

Ingredient	Invention Example	Comparative Example 1	Comparative Example 2
Cetyl trimethyl ammonium chloride (Dehyquart A OR from Cognis)	0.8 g (active material)	0.8 g (active material)	0.8 g (active material)
Quaternium-80 (ABIL QUAT 3272 from Goldschmidt)	0.5 g (active material)	0.5 g (active material)	-----
Isostearyl alcohol	0.25 g	-----	0.25 g
Stearyl alcohol	-----	0.25 g	-----
Amodimethicone (DC2-8299 from Dow Corning)	-----	-----	0.5 g
Ethoxylated sorbitan laurate (20EO) (TWEEN 20 from Uniqema)	0.3 g	0.3 g	0.3 g
glycerine	5 g	5 g	5 g
Citric acid	0.5 g	0.5 g	0.5 g
Perfume	Qs	Qs	Qs
Preservative	Qs	Qs	Qs
Water	Qs 100 g	Qs 100 g	Qs 100 g

These compositions were virtually identical except that the Invention Composition contained isostearyl alcohol, a liquid alcohol, and a silicone with quaternary ammonium groups. In contrast, Comparative Composition 1 did not contain a liquid alcohol, but rather contained stearyl alcohol, a solid alcohol. Comparative Composition 2 did not contain a silicone with quaternary ammonium groups, but rather a primary silicone amine compound (amodimethicone).

4. The turbidity of these three compositions was determined using a 2100P Turbidimeter from the Hach Company. The Invention Composition was translucent, having a turbidity of 74 NTU. In contrast, both of the Comparative Compositions were more opaque, having a turbidity of greater than, respectively, 150 and 1000 NTU.

5. Also, sensory characteristics associated with these compositions were compared. Specifically, the hair of 20 subjects was washed. The washed hair was treated with (1) the Invention Composition; and (2) either Comparative Composition 1 (10 subjects) or Comparative composition 2 (10 subjects), with  $\frac{1}{2}$  of the head being treated with 6 g of the Invention Composition and  $\frac{1}{2}$  of the head being treated with 6 g of a Comparative Composition. The compositions were left on the head for 5 minutes, and then rinsed with water. After rinsing, the flexibility and smoothness properties of wet hair were determined using a scale of 0 to 5 (for flexibility, 0 = not flexible, 5 = very flexible; for smoothness, 0 = not smooth, 5 = very smooth). Such a side-by-side comparison of relative sensory properties associated with two compositions is a standard procedure in the industry in general and at L'Oréal specifically.

6. The results of the side-by side comparisons were as follows. When comparing the flexibility properties associated with the Invention Composition to those associated with Comparative Composition 1, the Invention Composition received an average score of 3.7, while Comparative Composition 1 received an average score of 3.4. This difference in

flexibility was significant, and demonstrates that the Invention Composition provides hair with significantly better flexibility properties than Comparative Composition 1.

7. When comparing the smoothness properties associated with the Invention Composition to those associated with Comparative Composition 2, the Invention Composition received an average score of 3.8, while Comparative Composition 2 received an average score of 3.2. This difference in smoothness was significant, and demonstrates that the Invention Composition provides hair with significantly better smoothness properties than Comparative Composition 2.

8. Furthermore, when comparing the flexibility properties associated with the Invention Composition to those associated with Comparative Composition 2, the Invention Composition received an average score of 4.0, while Comparative Composition 2 received an average score of 3.6. This difference in flexibility was significant, and demonstrates that the Invention Composition provides hair with significantly better smoothness properties than Comparative Composition 2.

9. The vast difference in cosmetic properties (turbidity, flexibility and smoothness) between the Invention Composition and the Comparative Compositions was surprising and unexpected given the similarity of the compositions, and demonstrates the benefits of combining a liquid alcohol and a silicone with quaternary ammonium groups in a single composition.

10. The improved cosmetic properties obtained with the Invention Composition are representative of the present invention. That is, I would expect, based on the above experiments specifically and my experience in the laboratory generally, compositions containing a cosmetically acceptable medium, at least one silicone with quaternary ammonium groups and at least one liquid fatty alcohol to possess improved cosmetic

properties like those of the exemplified Invention Composition. I have no reason to expect otherwise.

11. The improved cosmetic properties associated with the invention compositions are commercially significant. Clearly, hair care compositions which make hair smoother and more flexible are more commercially viable than other compositions. Also, because clear compositions are often perceived by consumers to be cleaner or more hygienic than opaque compositions, translucent compositions are more commercially viable than opaque compositions.

12. The undersigned petitioner declares further that all statements made herein of her own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

13. Further deponent sayeth not.

FREDERIC WOODLAND  
Name



Signature

03/29/2007  
Date